

GLOBAL GENDER AND ENVIRONMENT OUTLOOK

SYNOPSIS REPORT OF THE DESK STUDY

“Gender Equality is a Cornerstone of Sustainable Development”

As the Global Environment Outlook-5 (UNEP, 2012) has shown, the environment changes at an unprecedented rate due to human interference. These changes have major impacts on both human livelihoods and human lives. There is an urgent need to understand these changes and their impacts from a gender perspective, and to draw lessons from that understanding. This is needed not only because such a perspective will make environmental policies more effective, but also because it will bring the social dimension of environmental work and sustainable development to the forefront. Active gender analyses and approaches are crucial, but there is still a general gap in knowledge and action around gender and environment, a niche that this Global Gender and Environment Outlook intends to fill.

This Synopsis is based on the draft of the Scoping Study in preparation of the Global Gender and Environment Outlook– that is planned to be published in June 2016. In order to contribute to the determination of the focus and scope of the upcoming Global Gender and Environment Outlook it explores the global and regional environmental issues at stake from a gender perspective. It does so by identifying main available studies, research and policy documents on gender aspects of those environmental fields that are in line with UNEP’s Priority Areas. Based on this literature review present trends in gender and environment are identified, as well as gaps in knowledge. Based on those insights, issues that would be most relevant to tackle in the Global Gender and Environment Outlook, are specified. Special attention is also paid to ways in which women’s and men’s roles as ‘agents of change’ can be strengthened.

For the scoping study more than 185 studies and documents were reviewed, and included in an annotated bibliography. It should be noted, however, that the literature explored is non-exhaustive. This synopsis forms an input into the Expert Group consultation for Global Gender and Environment Outlook to be held in Geneva, February 2014.

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BACKGROUND

It is more than 25 years ago that the first international textbook on women and environment was published (Dankelman and Davidson, 1988).¹ Since that time, knowledge and insights about gender dimensions of environmental change and management have evolved significantly. People's interactions with and impacts on the natural environment are as old as humankind itself, but these have changed over time. Women and men have played diverse and distinct roles and have carried distinct responsibilities in that interface. Gender-specific roles, rights, and responsibilities of people in their physical environments were first highlighted by scholars such as Ester Boserup (1970, 1989) – on agriculture – and by organizations such as the Food and Agricultural Organization (FAO), with regard to agriculture and forestry – and the International Union for Conservation of Nature (IUCN) regarding biodiversity conservation. Scholars like Vandana Shiva also contributed significantly to the understanding of the relevance of these interactions, particularly through her publication *Staying Alive: Women, ecology and development* (1988). Many of the existing studies and research on gender and environment focus on specific sectors, elements and cases, such as gender roles in food production, in biodiversity conservation, in water management and in energy use at global, national or local level, and more recently on gender aspects of climate change and disaster risk reduction.

Many of the publications of the past two decades show that women's positions and roles have been seriously neglected, not only in the practice of environmental conservation and sustainable management of resources, but also in the more scientific foundations of such activities in environmental science and studies. At policy level, the need to mainstream gender in the environmental sector and in sustainable development efforts has been recognized during the past 15–20 years, although often reluctantly.

i. Global Gender and Environment Outlook

Legislative authority for the preparation of Global Gender and Environment Outlook lays in UNEP Governing Council Decision 23/11 (2005) on 'Gender Equality in the field of the Environment', its Medium Term Strategy 2013-2017, and its Programme of Work 2014-2015. The First Universal Session of UNEP in 2013, welcomed the proposal for a gender and environment outlook that would use social science information and gender-sensitive indicators to review gender environment links and guide policy actions towards gender equality, as reflected in the preamble of GC Decision 27/11.

This review is guided by the following **Principles**:

- i. a rights-based approach; enhancing environmental justice, with specific attention for the gender-poverty-environment nexus;
- ii. scientific/academic sources, review and reporting;

¹ Dankelman, Irene and Joan Davidson, 1988. *Women and Environment in the Third world: alliance for the future*. Earthscan, London.

- iii. transparency and accountability;
- iv. a participatory approach: involving experts/consultations (within and outside UNEP), starting with the expert scoping meeting (February 2014).

From the onset, it is important to have a critical stand regarding gender aspects of environment and natural resources. UN Water(2005)² articulates some useful **warnings**:

- **Essentializing women's roles**; there is a danger of perpetuating myths and stereotypes about women's specific characteristics, that not only ignore differences between women, but also reinforce women's marginalization into areas where they can exert little power or influence.
- **Myths of community and of the common interests of all women** (neglecting issues of intersectionality and diversity).
- **The costs of participation**, e.g. for women's time.
- **Management in practice**, which tends to hide the more informal processes. For example, formal committees and associations rely on public forms of decision-making and the transparent confrontation of issues such as access, distribution and rationing. However, there is plenty of evidence that poor people, and particularly poor women, are so dependent on reciprocal relations for their livelihoods that they are unlikely to take part in more formal discussions on a free and open basis.
- **The tension between efficiency and equality**; for example in water interventions³ there may be tension between the desire to get the job done (provide improved water supplies, ensure their sustainable use and management) and the aim of furthering broader social goals such as women's empowerment, gender equality and inclusion of the marginalized.
- **Division of paid natural resources work** between men (more paid jobs) and women (more unpaid work).

Cross-cutting issues for the Global Gender and Environment Outlook are the nexus between **Gender, Environment and Conflict**, and the role that **vulnerability** and **resilience** play in the context of gender and environment. Another element that should get specific attention are the **intersections** between gender and other social differentiators, such as class, caste, ethnicity, age, education and health status, as there is not only a diversity between men and women, but also amongst women and men.

ii Analytical Framework

It speaks for itself that there is a need for a common analytical framework that could form the basis of the Global Gender and Environment Outlook process. It would be helpful to use the **DPSIR-framework** (driving forces/pressure/state/impact/response), that already formed the basis of the past two Global Environment Outlooks. DPSIR, however, does not reflect the specific gender-dimensions of drivers, impacts and responses, whereas the objective of this

² UN Water – Interagency Task Force on Gender and Water (2004). *A Gender Perspective on Water Resources and Sanitation*. Background Paper submitted to the Commission on Sustainable Development, 12th session, April 2004. UN DESA, New York.

³ This might be the case in other resource related interventions as well.

Global Gender and Environment Outlook is to focus specifically on the gender-environment interactions.

Informing the DPSIR framework with gender/women-environment frameworks – such as the Gender-Environment Analytical Framework described in the scoping study, could result in a useful tool to analyse present situations and identify trends, as well as reflecting on relevant policies and actions. Focus will be on the gender-specific human dimensions of the drivers, impacts and responses in the framework. In these roles and responsibilities, views and bodies of knowledge, and time allocations, but also factors such as access to and control over resources, health indicators, participation and decision-making power should be highlighted. This should be done from a human rights perspective and could use human security as an important indicator.⁴ A first effort to develop such an analytical framework is included in Annex 2 to this Synopsis.

iii. Outline:

Part A of the report focuses on State and Trends on Gender and Environment. The first chapter presents a quick overview of the historical thinking around gender and environment and identifies relevant analytical frameworks, critical factors and processes. In the next chapters specific attention is paid to the gender dimensions of biophysical areas including: energy (1), climate change and disaster risk reduction (2); land and land uses (3); water and sanitation (4); and biodiversity and natural resources management (5). The section is also focusing on gender issues of environmental health (6).

Part B of the report focuses on Global Responses. Its first chapter (7) looks into indicators, and draws conclusions on the existing body of knowledge and information gaps, while the next chapter (8) describes gender aspects in global environmental governance and responses. The following chapter (9) looks specifically into gender mainstreaming into the Green Economy. Next, attention is paid to women's and men's roles as 'agents of change'. The final chapter of this Synopsis draws some preliminary conclusions.

PART A: STATE AND TRENDS ON GENDER AND ENVIRONMENT

1. Gender and Sustainable Energy

i. Existing and emerging challenges from a gender lens (including policy implications)

With the focus on the increasing energy demand and insecure supply worldwide and its related problems of emissions and conflicts over resources (e.g. in case of biofuels), the effects on household level, including energy poverty, are often overlooked. In people's daily lives, energy provides essential services, such as for cooking and heating, lighting, food production and storage, but also has major implications for education, communication,

⁴ Other approaches, such as Nussbaum's 'capabilities approach' (2001) and the use of a livelihood approach by Harcourt c.s. (2012) can further enlighten the analysis and assessment processes.

health services, industrial production and transportation. However, energy access, availability, affordability and safety are limited, mainly impacting poor rural and peri-urban communities. Worldwide in 2011 12.5% of the energy consumed came from biofuels and waste. (IEA, 2013)⁵ This is particularly the energy carrier of poor households; women and children – mainly in rural and peri-urban areas - are particularly affected by its scarcity and inferior fuel quality, as they are often the ones responsible for its supply at household level. A focus on gender issues is particularly important in this context since many of the world's poorest people are women living in rural areas in developing countries who are currently dependent on subsistence agriculture to feed their families, and who are disproportionately affected by the lack of modern fuels and power sources for farming, household maintenance and productive enterprises. (FAO, 2006)⁶

Rural women and children often spend several hours a day in collecting fuel, time that cannot be used for other livelihood or economic activities. Although nearly every household in rural areas will use some biomass as an energy carrier, poor households will spend more time searching than those in higher income groups. Compared to men, women often are less well fed, but have to spend a lot of their human energy, up to four hours per day or 60 days every year — collecting firewood. Not only is fuel collection extremely time consuming and laborious, particularly in conflict settings, women and girls face an increased vulnerability to physical and sexual violence when leaving the safety of their communities or refugee camps to find fuel to cook. (GACC, 2013)⁷ Victims of environmental degradation in the end may be forced to become 'actors' in further perpetuation of degradation. Therefore solving problems of fuel scarcity, can result in more environmental sustainability and improving women's lives and that of their families.

The use of biomass as fuel not only has environmental impacts, but it also has direct health repercussions for people living in poverty. The fuel quality is low, and when burnt it gives off quantities of smoke and particulates that have negative effects on health. Every day millions of women around the world are breathing in harmful smoke while cooking their families' meals. Exposure to household air pollution caused by polluting, inefficient and dangerous cooking practices kills nearly 4 million people every year, and millions more suffer from cancer, pneumonia, heart and lung disease, blindness, and burns. (GACC, 2013)

Energy use in the Northern hemisphere is dominated by transport, households and industrial sector. Gross inland consumption of primary energy with the EU, for example, was in 2010 1.759 million tonnes of oil equivalent (toe), with a growth of on average 0.2% per annum and the share of renewable energy increasing by 4.2% between 2000 and 2010. (Eurostat,

⁵ International Energy Agency (IEA) (2013). 2013 Key World Energy Statistics. IEA, Paris. (p.28) Report, 80 pp. <http://www.iea.org/publications/freepublications/publication/KeyWorld2013.pdf>

⁶ Lambrou, Yianna and Grazia Piana (2006). *Energy and Gender in Rural sustainable Development*. Food and Agriculture Organization (FAO), Rome

⁷ Global Alliance for Clean Cookstoves, 2013. *Scaling Adoption of Clean Cookstoves through Women's Empowerment: A Resource Guide*. GACC.

2011)⁸ Access and control over modern forms of energy, including sustainable energy, technologies and electrification is often less for women than for men and can be limited due to its pricing. Even in case of the use of charcoal in urban areas in Southern cities, the claim on the family budget can be very problematic. Another factor is the fact that historically women have been invisible in the formal energy sector and energy infrastructure and services are often and incorrectly considered to be gender neutral.

Summarizing: energy sources, services and technologies contribute to women's and men's practical, productive (income generation and opportunity) and strategic needs, but are not easily accessible. Issues around access to energy include: availability; affordability (household expenditures); safety (health, safety and quality of life); and sustainability (incl. contributions to climate change mitigation).

ii. Knowledge gaps that need to be filled

In the energy sector, the gender dimensions of access to services, exposure to risks, and access to benefits are being increasingly recognized as important elements to be considered for effective policy making and project design. In practice, this translates into integrating a gender perspective throughout the operational cycle of projects, to improve gender equity in participation, benefits and opportunities.

Apart from promoting a gender-specific approach in the energy sector, there are a few dimensions that need specific attention:

- Continued attention is needed for gender differentiated dependency on biomass energy, particularly also in relation to changing (and degrading) environments, and the health implications of technology choices;
- Access to and control over clean and sustainable energy sources and technologies, that also contribute to climate change mitigation; in this context the role of men and women in energy transitions towards low-carbon pathways, needs specific attention;
- Although some studies pay attention to gender aspects of energy services in urban areas, in the urbanizing world much more research needs to be executed on gender and energy in city contexts;
- Gender differentiated information on energy consumption and production in developed and developing countries which can guide transitions towards a green economy (see chapter 9).

iii. Gender related trends in energy management to be addressed and highlighted in Global Gender and Environment Outlook

Apart from a focus on gender dimensions in the energy sector, Global Gender and Environment Outlook could fill some of the specific gaps, identified in the paragraph above.

⁸ [http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Final_energy_consumption,_EU-27,_2010_\(1\)_\(%25_of_total,_based_on_tonnes_of_oil_equivalent\).png](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Final_energy_consumption,_EU-27,_2010_(1)_(%25_of_total,_based_on_tonnes_of_oil_equivalent).png) ; transport 31.7%; households 26.7%, industry 25.3%; services 13.2%; agriculture 2.2%.

2. Gender, Climate Change and Disaster Risk Reduction (DRR)

*“Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased”.*⁹ (IPCC, 2013:2)

i. Existing and emerging challenges from a gender lens (including policy implications)

It is *very likely* that these climatic changes manifest themselves already widely in sudden natural disasters, such as extreme weather events, flooding and intensified storms, and in slow-onset disasters, such as prolonged drought, water and heat stress. (IPCC, 2013) Climate change is seriously impacting populations and ecosystems worldwide, and will certainly continue to do so in the (near) future. In many places climatic changes threaten to set back development efforts by decades, with profound effects for many communities. However, those responsible for most emissions due to energy use and changes in land-use are often not the ones who feel the impacts and whose human securities are directly threatened. Those with the fewest resources are the most vulnerable and therefore most susceptible to climatic changes. (UNFPA & WEDO, 2009)¹⁰

Recent experiences and literature – including disaster studies – have underlined that although climate change affects everybody, it is not gender-neutral. Although in the late 1990s some reference was made to gender aspects and climate change, most information is generated since the early 2000s. Attention for gender dimensions of climate change has certainly increased during the past 5 years; this is reflected into a wider recognition of the relevance of these linkages in international and national policies and initiatives. Also the connection with lessons learned about gender dimensions of disasters in disaster-related literature, has recently become more and more evident.

Climate change has significant social impacts and tends to magnify existing disparities, such as the inequalities between women and men in their vulnerability and ability to cope with this global phenomenon (also relevant are intersections with other social inequalities, such as class, caste, ethnicity, health status, age). While women are often seen as victims of climate change – because of their socio-economic status, cultural aspects, including roles and responsibilities, and limited control over (natural) resources -, more and more literature underlines the fact that next to men, women at all levels play important roles as agents of change and contribute significantly to enhancing livelihood strategies. For climate change strategies to be successful and rights-based, gender concerns need to be fully mainstreamed into local, national and international levels and women need to participate fully in technological developments. (Dankelman, 2010)¹¹ As innovators, organizers, leaders, educators and caregivers, women are uniquely positioned to help curb the harmful consequences of a changing climate. Incorporating a gender perspective into climate change

⁹ Intergovernmental Panel on Climate Change (IPCC), 2013. Climate Change 2013. The Physical Science Basis. Summary for Policy makers. IPCC, Geneva. p.2

¹⁰ UNFPA and WEDO (2009). *Climate Change Connections: a Resource Kit on climate, population and gender*. UNFPA and WEDO, New York.

¹¹ Dankelman, Irene (ed) (2010). *Gender and Climate Change: an Introduction*. Earthscan, London.

policies, projects and funds is crucial in ensuring that women contribute to and benefit from equitable climate solutions. (UNFPA & WEDO, 2009)

Such a call for women's empowerment and for gender mainstreaming in climate policies, mechanisms, funding, technologies and actions, is widespread throughout most recent studies, publications and advocacy actions. For example during the past years interest has moved away from integrating gender texts, targets and objectives in climate policies, and has developed into an increasing interest in the integration of a gender perspective into the operationalization of such mitigation and climate adaptation policies, for example in climate funds, financing mechanisms (e.g. CDM, REDD+) and in technology transfer.

An interesting and relevant **deviating opinion** is expressed by Sarah Bradshaw who in her recent book 'Gender, Development and Disasters' (2013) problematizes the way women are being incorporated into disaster-related work, highlighting that while there are valuable lessons to be learnt from gender mainstreaming in development, a valuable lesson might be not to engender disasters. Her study highlights that while women are now central to both disaster response and development, tackling gender inequality is not yet. (Bradshaw, 2013)¹²
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ii. Knowledge gaps that need to be filled

- Context-specific, socially-differentiated information on gender-climate change interactions; and consolidation of such knowledge.
- Studies on gender-climate change interactions in urban situations.
- Information on the impacts of gender mainstreaming in climate change policies, mechanisms and actions.

iii. Gender related trends in climate change to be addressed and highlighted in Global Gender and Environment Outlook

Specific attention needs to go to:

- Consolidation of data and lessons from existing experiences and literature, and make these context-specific;
- Recording women's and men's (boys and girls) own voices and experiences with regard to climate change, including their views on needs and strategic approaches; this also requires clear recognition of the different vulnerabilities and strengths of women and men;
- The intersections of gender with other social differentiators, such as class, caste, ethnicity, age;
- A critical review of gender mainstreaming experiences in climate and disaster management;
- Strengthening linkages between social, physical, technical, planning and legal science on social and gender aspects of climate change mitigation and adaptation;

¹² Bradshaw, Sarah (2013). Gender, Development and Disasters. Edward Elgar, Cheltenham (UK).

¹³ Remark: it might be worthwhile setting out different views that potentially affect the approach to the GGEO. This may require a brief discussion to fully understand these perspectives.

- Strengthening transformative capacities of women and men, boys and girls to deal with climate impacts and build sustainable carbon-neutral economies and societies.

3. Gender and Land: Tenure, Land use and Agriculture

i. Existing and emerging challenges from a gender lens (including policy implications)

In most societies over the ages both men and women have played important roles in the use of land and its productivity. According to several researchers and writers, such as Dahlberg (1983), Owen (1998) and Howard (2003), it was actually ‘woman-the-gatherer’ who was the primary source of sustained food supply for local prehistoric communities – and not ‘man-the-hunter’.¹⁴ Women’s activities – among which were the gathering of fruits, nuts, edible leaves, flowers, mushrooms, roots, shoots, tubers, biomass energy and medicinal plants – provided daily sustenance. Still women in many countries and regions around the world – particularly in developing countries - make crucial contributions in land use, agriculture, forest use and rural enterprises, as farmers, workers and entrepreneurs. However, until recently these roles were less recognized by (official) agricultural institutions, often resulting in the pitfall of gender neutral planning and implementation and limited access of women to agricultural technology, extension and necessary inputs.

Although their specific roles vary across regions, poor communities and particularly rural women, face gender-specific constraints and gender gaps in access to productive resources. Women control less land than men do, with insecure tenure, and the land and land-bound resources they can access and control are often of less quality. There are also contradictions in formal legal systems, and customary rights. Another issue is that limited ownership of land also impacts other assets, such as access to and control over credit, and income. The absence of formal land rights for women, also has its implications on the access to and control over other resources, such as agricultural systems, forests (including trees and tree products), and water sources.

More and more environmental problems as well as climatic changes, result in land degradation, including changes in soil fertility, desertification, and loss of productive potential. Growing demand and economic pressures, such as those for high-tech export agriculture, forest logging, the establishment of plantations (e.g. through land grabbing), and mining, could severely contribute to appropriation of resources, neglect of women’s roles and contributions to subsistence agriculture, land management and local enterprises; with negative impacts on food security and the sustainability of livelihoods. (Harcourt, 2012; Kelkar & Krishnaraj, 2013)¹⁵ Similarly appropriation and related loss of access and control over resources could be related to the establishment of protected areas; this implies that

¹⁴ Dahlberg, F. (ed) (1983). *Woman the Gatherer*. Yale University Press, New Haven and London; Owen, L (1998). ‘Frauen in Altsteinzeit: Mütter, Sammlerinnen, Jägerinnen, Fisherinnen, Köcherinnen, Herstellerinnen, Künstlerinnen, Helerinnen’ in: Auffermann, B. and G.C. Weniger (eds), *Frauen, Zeiten and Spuren*. Neanderthaler-Museum, Mettmann; Howard, P. (ed) (2003). *Women and Plants: Gender Relations in Biodiversity Management*. Zed books, London.

¹⁵ Harcourt, Wendy (ed) (2012). *Women Reclaiming Sustainable Livelihoods: spaces lost, spaces gained*. Palgrave/Macmillan, New York ; Kelkar, Govind and Maithreyi Krishnaraj (2013). *Women, Land and Power in Asia*. Routledge and Taylor & Francis Group, New Delhi/Abingdon (UK).

what is good for the conservation of the environment is not always positive for local communities, certainly not on the short run.

In order to countervail these developments and address the constraints of poor communities, and particularly of poor women, in recent years several initiatives have started to mainstream gender concerns in agricultural science and development. This is reflected also in efforts to improve women's land rights and the empowerment of women in land restoration, forest management and rural economies. On the other hand, in order to tackle environmental degradation efforts in sustainable agriculture, land restoration and climate change management, including REDD+, have started. The question is how does these efforts impact on gender relations and improve women's opportunities and gender equality.

Finally, several of the reviewed reports underline that enhancing gender equality in rural development could significantly increase agricultural production and rural output. The question remains however, what this instrumental approach really means for gender equality and if indeed food security for the communities is enhanced. The growing demand for food leads to land use intensification (or further habitat conversion); this means that some important choices have to be made, determining to what extent small scale practices will have the opportunity to further develop.

ii. Knowledge gaps that need to be filled

Apart from building knowledge on land use (changes) in urban contexts and its gender implications, the Centre for International Forest Research (CIFOR) (2013)¹⁶ identifies a number of specific knowledge gaps, including (adapted for land use in general):

- Understanding the effectiveness of the recent wave of tenure reforms aimed at strengthening women's rights to land, grasslands, forest and tree resources;
- Identifying gender-differentiated implications of global processes such as climate mitigation and adaptation, and large-scale land acquisitions, on resource access, livelihoods, opportunities and on gender relations;
- Designing and implementing strategies for the gender-equitable distribution of land-use, forest and tree benefits, including distribution of incomes between men and women;
- Designing organisational incentives and strategies for enhancing gender-responsive policy implementation;
- Identifying cultural taboos influencing the use and management of land, forests and trees, including tree planting and the adoption of innovative technologies; and
- Increasing women's participation influence along the value chains of agricultural, forest and tree products, and their control of incomes and related benefits.

It is also necessary to explore gender aspects of mining and of land grabbing, and to study the gender implications of agricultural intensification.

¹⁶ CIFOR (Centre for International Forestry Research) (2013). A Framework for Analysing Gender Roles in Forest Management. CIFOR (CGIAR), Bogor

iii. Gender-related trends in land use to be addressed and highlighted in Global Gender and Environment Outlook

Based on the trends and issues identified above it seems that Global Gender and Environment Outlook should focus specifically on gender impacts of environmental degradation and deterioration of ecological services of land and land-based resource, what women and men do in order to adapt to these situations, what alternative land uses and technologies are available, and how these can support local women and men. Recent policies and efforts to mitigate and adapt to climate change (including mechanisms) and address environmental degradation in land (quality), need extra attention to ensure gender-responsiveness of such measures and their contributions to enhancing food security, women's environmental rights and their decision-making power.

There is also a need to learn lessons from empowerment and involvement of women in sustainable land use, including sustainable agriculture and forest management. These could be shared in Global Gender and Environment Outlook.

Another issue to be addressed is that laws that seek to secure gender equality and women's economic empowerment are often overruled by norms that favour men (conflict legal measures and cultural norms); also changes in the global economy impact on women's rights were they previously enjoyed more customary rights. (See also: Kelkar and Krishnaraj, 2013) The role of migration and encroachment is another element that needs specific attention, also in combination with the issue of the management of conflict over scarce quality resources.

4. Gender, Water Use and Sanitation¹⁷

Water is essential for all life on earth, for ecological sustainability, and for human wellbeing in diverse ways, including for household use (drinking, cleaning, cooking), for agriculture, for industrial production, for energy generation and as a means for transportation. Water quality determines human and ecosystem health (absence of water-related diseases and of pollution). Therefore water scarcity¹⁸ and pollution of water sources impact severely on people's lives. But too much water, due to flooding, is another major challenge. This way water is the primary medium through which climate change impacts the earth's ecosystems and people, resulting in too much water or too little.

On 28 July 2010, the United Nations General Assembly – in a resolution - recognized the human right to water and sanitation. It also acknowledged that clean drinking water and sanitation are essential to the realisation of all human rights. The resolution calls upon States and international organisations to provide financial resources, help capacity-building and technology transfer to help countries, in particular developing countries, to provide safe,

¹⁷ This section does not look into marine ecosystems and resources yet. Question is if a separate section needs to be included in the scoping study .

¹⁸ The definition of access to safe drinking water, according to the World Health Organization (WHO), is an average of 20 litres per person per day within one kilometre walking distance of the household, and basic sanitation refers simply to a sanitary means of excreta disposal.

clean, accessible and affordable drinking water and sanitation for all. - See at: <http://www.unwater.org/TFsuppliesanitation.html#sthash.05aCAzVh.dpuf>

Between 1990 and 2010, two billion people gained access to improved drinking water sources and 1.8 billion people gained access to improved sanitation facilities. In 2010, 89 % of the world's population, or 6.1 billion people, used improved drinking water sources, exceeding the MDG target (88 %); 92 % are expected to have access in 2015. By 2015, 67 % will have access to improved sanitation facilities; this is still below the MDG target of 75 %. In 2011, 768 million people were still without access to improved sources of drinking water while 2.5 billion people did not use improved sanitation. See at: http://www.unwater.org/statistics_san.html#sthash.Lwk65RSn.dpuf

i. Existing and emerging challenges from a gender lens (including policy implications)

Although access to improved drinking water has increased over the past 20 years, both women and men are impacted by scarcity of water resources of good quality. This also means that competition between different water uses increases (e.g. for household, agriculture, energy use and the environment) and a higher pricing of water. This process is exacerbated by climatic changes, disasters and conflict.

This physical and economic (good quality) water scarcity, impacts severely on gender equality as in many rural and peri-urban communities women – often assisted by children - are the primary providers of water. This means that time, effort and household budgets of female members of households are often negatively impacted. Also competition over water allocation has major gender implications, e.g. irrigation in agriculture or the use of water for energy are still mainly male domains, competing with women's water needs. On the other hand, women in industrialized countries play a key role in the management of water consumption in households, whereas men dominate water in agriculture, industry and integrated water resources management (IWRM).

Lack of safe sanitation particularly impacts the health and safety of women and girls in many communities. For example if schools lack safe sanitation services, school enrolment of adolescent girls is hampered.

Policy **recommendations** include:

- Women should be recognized as central to the provision, management and safeguarding of water and environmental management;
- Policies and strategies on water and environmental management need to respect gender differences;
- Good understanding of gender equality issues and institutional capacity is required for adequate implementation of policies and strategies.
- Strengthen legislation and mobilize resources for increasing access to safe water and adequate sanitation;
- Facilitate access to land and water for productive purposes;

- Promote access to (sustainable) sanitation;
- Develop capacity and encourage local participation;
- Mobilize adequate resources; and
- Encourage gender mainstreaming in water and sanitation sector at all levels.

More and more experiences are gained and **lessons learned** regarding a gender-specific approach in water and sanitation. These include: (UN WomenWatch, 2005; WSP, 2007, p.20)¹⁹

- It is critical to recognize the need for inter-sectoral approaches (involving different sectors, such as water infrastructure, water institutions and water user groups);
- Gender sensitivity necessitates a flexible learning approach to development interventions;
- Gender relations also impact development institutions – these need to pay attention to the way that such relations impact on the functioning of their own work and water resources management at local level;
- A participative methodology establishes a strong link with aspects that are highly valued by men and women; and an inclusive mechanisms for men and women in development contribute to the exercise of good governance.
- The incorporation of a gender component strengthens the expression of the broad citizen's demand for access to quality services and the willingness to pay a fair tariff; this way women and men decide together on the tariffs, contributing their different perspectives. (see: WSP, 2007, page 20)

ii. Knowledge gaps that need to be filled

See particularly the next paragraph on 'gender-related trends in water use and sanitation' in which an effort is made to identify areas to fill relevant water/sanitation-gender related knowledge gaps.

iii. Gender-related trends in water use and sanitation to be addressed and highlighted in Global Gender and Environment Outlook

There is a need to focus on the following areas:

- Information on gender roles in integrated water (resources) management at local level, including in watershed management, - including gendered knowledge systems with regard to water (quality) management- , and the interaction with national and regional institutions and policies;
- Gender dimensions of water choices, e.g. water for household use, agriculture, industry and energy (power generation);
- Gender aspects of water and sanitation services (WSS) in urban settings need specific attention; with specific reference to WSS in slum areas (in cooperation with UN Habitat).
- Gendered aspects of sustainable water and sanitation facilities and technologies.

¹⁹ UN WomenWatch (2005). *Women and Water*. Theme-number of *Women2000 and Beyond* , pp.1-25; WSP (Water and Sanitation Programme) (authored by: Mercedes Zevallos and Raquel Pastor) (2007). *Water, Gender and Citizenship: involving men and women in the management of water and sanitation services*. WSP. World Bank Office, Lima.

- Finally the impact of environmental change, and particularly of climatic changes, on access to and control over water sources of good quality.

5. Gender, Biodiversity and Natural Resources Management

“Recognizing also the vital role that women play in the conservation and sustainable use of biological diversity and affirming the need for the full participation of women at all levels of policy-making and implementation for biological diversity conservation,” From: Preamble Convention on Biological Diversity (CBD)

Humanity worldwide relies heavily on biodiversity, e.g. on pollinators for food production. (GEO-5, 2012) For many women and men in rural areas biodiversity²⁰, including agro-biodiversity, forms the core of their existence; and the basis of human well-being. Women and men have diverse knowledge (systems), perspectives, needs and priorities, and their roles in the conservation and management of resources are often different.

Secure access to such diversity of plant and animal species, varieties and ecosystems, and secure access of land for agriculture and home-sites, leads to greater habitat protection of existing biodiversity; equitable access to such natural resources and land tenure could therefore support biodiversity conservation. Both women and men working with plants and animals need technical support, financial resources and extension services in order to mitigate or reduce potentially harmful practices.

A gender approach could bring innovation and different approaches to biodiversity conservation and research, reflecting women’s and men’s contributions, constraints, needs and preferences (such as access to land and other natural resources, land use, conflict resolution, and household food security during economic and climatic crises).

i. Existing and emerging challenges from a gender lens (incl. policy implications)

As the Global Environment Outlook-5 (2012), the Millennium Ecosystem Assessment (2005), the Living Planet Report (2012) and the Red Lists of Animal and Plant Species demonstrates clearly, worldwide biodiversity has declined an average of about 30% between 1970 and 2008.²¹ This has not only major ecological and economic consequences and ethical implications, it also impacts directly on the lives of communities, particularly of those directly depending on access to ecosystems and good quality natural resources, including indigenous communities. This decline in biodiversity, including agro-biodiversity, also affects the work, roles, responsibilities, knowledge and opportunities (incl. economic) of women and men, in a gender-specific way.

Access and benefit sharing (ABS) and the safeguarding of intellectual property rights are issues that need specific attention in the context of the use and conservation of biodiversity. For example the access and ownership over seeds can play an important role in securing food sovereignty. This certainly has gender implications as in many communities seed

²⁰ Biodiversity includes: the diversity between species, ecosystems and within species (genetic diversity).

²¹ Millennium Ecosystem Assessment (MEA) (2005). *Synthesis Report: Ecosystems and human well-being*. Island Press, Washington D.C.; see: www.maweb.org; WWF (2012). *Living Planet Report 2012*. WWF, Gland (CH)

collection and management are primarily female roles. Therefore provisions under the CBD with regard to ABS need to promote a gender-specific approach.

Biosafety, the safety of biological resources, in particular of genetically modified organisms (GMOs), for the environment and human health is an area that also needs specific attention from a gender perspective, as the introduction of GMOs might increase existing gender inequalities: neglecting or even threatening female farming systems, and displacing female farmers. Therefore gender mainstreaming in the Cartagena Protocol (2000) and in biosafety measures is essential and women worldwide, and especially women from indigenous groups and local communities, need to have access to relevant information, skills, equipment, regulatory frameworks, and procedures.

Payment for Ecological Services (PES) is presently under discussion and being experimented with. Although the economic incentives which come with this effort, certainly have potential for conservation of biodiversity, there is an urgent need to ensure that such efforts equitably benefit women and men in local communities, particularly indigenous groups. The criticism on monetarizing natural resources and nature, and therefore putting it out of reach of local people, should be taken seriously, also from a gender perspective.

Recommendations made in this area include: (IUCN, post-2006; CBD&IUCN, 2008)²²

- Biodiversity conservation and research should be gender sensitive, and the linkages between gender, biodiversity and poverty eradication must be studied further.
- Women's and men's differing traditional knowledge and intellectual property
- Should be recognized, valued and protected in the context of ABS and in the design and introduction of GMOs in any country.
- CBD Parties should integrate the gender perspective into the national biodiversity
- Planning processes and should ensure that, in mainstreaming a gender perspective in National Biodiversity Strategies and Action Plans (NBSAPs), they present gender/biodiversity-related information, include gender-disaggregated data, and involve both men and women in the research of data.
- Gender equality and non-discrimination should be included as a key element in the discussions surrounding the international regime on Access and Benefit Sharing (ABS) and related Traditional Knowledge (TK). Gender should be mainstreamed in the Cartagena Protocol and the National Biosafety Action Plans, and ABS regimes must comply with human rights frameworks, and international and national commitments on gender equality, including the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW).
- Partnerships and networks should be built to promote the mainstreaming of gender within the biodiversity conservation and management; these should include women's organizations, gender organizations, governmental and non-governmental organizations, among others.
- The capacity of women, particularly of indigenous women, to participate in CBD processes and decision making must be enhanced and valued. Information, training

²² CBD and IUCN (2008). Factsheets: *Gender and National Biodiversity Strategies and Action Plans (NBSAPs); Gender and Agricultural Diversity; Gender and Access and Benefit Sharing (ABS) of Genetic Resources*; IUCN, (post-2006?). *Gender and Biodiversity*. Factsheet. IUCN, Gland.

and educational materials related to biodiversity management should be targeted towards women. Women should also be involved in related decision-making processes.

- Countries should take advantage of their compliance with the CBD's provisions to create policies and legislation that safeguard the human rights of men and women, as well as indigenous and local communities. This is a great opportunity to achieve equality and equity between men and women in their access to resources, control of their traditional knowledge, and benefits from sound management and participation in governance and decision making.

ii. Knowledge gaps that need to be filled

- Intersectionality of gendered knowledge - location-specific; for example the linkages between gender, biodiversity and poverty eradication must be studied further, e.g. through the UNDP/UNEP Poverty and Environment Initiative.
- See paragraph below.

iii. Gender-related trends in biodiversity to be addressed and highlighted in Global Gender and Environment Outlook

Global Gender and Environment Outlook could focus on:

- Gendered knowledge of agro-biodiversity and its contributions for adaptation to environmental changes.
- Gender-specific impacts of the decline of biodiversity in diverse ecological and geographical contexts.
- Gendered impacts of biodiversity conservation (measures) and lessons learned from gender mainstreaming efforts in this area at global, national and local level so far.
- Gender-mainstreaming in access and benefit sharing (ABS): lessons learned so far.

6. Gender issues in Environmental Health^{23 24}

“Vulnerable groups in developing countries such as children, women, indigenous people, the poor and workers suffer disproportionate impacts from chemical exposure due to, among others, high exposure levels from water, food, location of dwelling, occupational circumstances as well as lack of understanding on the needs to protect themselves and others from the chemical risks.”

Report of the UN Secretary-General for CSD-19 on Chemicals, 2010 (in UNDP (2011): 23)²⁵

i. Existing and emerging challenges from a gender lens (including policy implications)

Environmental conditions impact directly and indirectly on human health, and these impacts are shaped by the specific environmental situation and social inequalities, including gender inequalities. In earlier chapters issues such as increasing workloads and physical burdens on women due to changing environmental conditions (such as climate change) came to the

²³ As currently also a Scoping Study is executed for UNEP (Chemicals Branch) on Gender and Chemicals by Women in Europe for a Common Future (WECF), that is planned to be available in February/March 2014, this chapter is kept quite limited, and therefore shallow in its scope. Not yet explored is the issue of gender and waste management.

²⁴ See also: Energy and Climate Change; Water and Sanitation.

²⁵ UNDP (2011). Gender Mainstreaming Guidance Series: *Chemicals and Gender*. UNDP, New York.

forefront. Environmental changes, such as slow- and sudden-onset extreme weather events, result in an increase in disaster incidences with related fatalities and injuries, and negative impacts on livelihoods, with related migration. It was underlined how all of these effects have gender specific health implications.

How in-house living conditions can have very gender specific health effects is described earlier: in-house air pollution from energy sources forms a serious threat particularly for women and children. Similarly, more direct exposure to polluted water sources, might have adverse health effects (e.g. water-borne diseases) for the primary household water providers and users, often women.

On the other hand, it might be that there are gender-specific inequalities in occupational health risks amongst men and women. Exposure to hazardous chemicals is becoming a major concern, and has often diverse implications for women, men and children.

ii. Knowledge gaps that need to be filled

On all the areas of interaction as described above more research and information is needed; region-specific as well as rural and urban. Specific needs are in the area of chemicals-health-social inequalities (See also: WHO, 2010: 16: “Research priorities need to be identified and research activities supported to help assess the magnitude of environmental inequalities related to social factors and gender, to identify the mechanisms linking social determinants and gender with inequalities in environmental and occupational risk, and to assess the direct health outcomes of these inequalities.”²⁶)

iii. Gender-related trends in environmental health to be addressed and highlighted in Global Gender and Environment Outlook

- Although environmental health should be a cross-cutting issue and important gender-specific manifestation of environmental conditions – and therefore should be integrated in the other sections and chapters of Global Gender and Environment Outlook, it seems to be wise to dedicate a separate section/chapter to chemicals management, environmental health and gender (in)equalities. This could be helpful in sharing lessons learned within and across different regions.

PART B. GLOBAL RESPONSES ON GENDER AND ENVIRONMENT

7. Body of Knowledge and Gaps: indicators, information and data

In order to develop and implement gender-sensitive environmental policies, programmes and projects, it is important to understand situations, to analyse linkages and to measure changes, including social change. Indicators, and monitoring and evaluation (M&E) frameworks are important tools and ways to measure social change. Baltiwala & Pittman

²⁶ WHO (World Health Organization) (2010). *Social and Gender Inequalities in Environment and Health*. WHO Europe, Copenhagen.

(2010:8)²⁷ identify the following reasons for measuring change: to learn, to analyze our role in the change process, to empower constituencies, to practice accountability and build credibility, and to advance advocacy for social justice. They notice, however, that in practice M&E is more likely to be done because: donors require it, to secure or obtain more funding, and to support fundraising or advocacy work.

i. Existing and emerging challenges regarding gender-sensitive data, indicators and monitoring and evaluation frameworks for the environmental sector

The collection and analysis of gender-specific data, and reflection of that information in gender-specific statistics, is an important prerequisite for the development of gender-sensitive policies, and the enhancement of gender equality and women's empowerment. The *Women of the World Report*, that is published every five years by UNDESA (UNDESA, 2010)²⁸, the gender statistics that are made available through the UN Statistics Office, and the gender data shared through the World Bank through their gender equality data and statistics portal, make such relevant data available.

There is already a wide variety of indicators and frameworks available to measure changes and progress regarding gender equality and women's environment in the development sector. These are used to measure and monitor empowerment and capture change in women's realities (Batliwala & Pittman, 2010). There are also indicators and frameworks that measure progress in specific areas such as violence against women, or for a specific region, such as the African Gender and Development Index (AGDI) (UNECA, 2004).²⁹ The World Economic Forum developed the Global Gender Gap Index based on economic, political, education, and health-based criteria, and publishes these results in the annual Global Gender Gap report (2013).³⁰ CIDA's Guide to Gender sensitive indicators (1997) and the IDS Overview Report, developed by Moser (2007), give useful overviews over relevant gender-sensitive indicators, whereas AWID has developed a Wiki on gender-sensitive Monitoring & Evaluation (2011-2013).³¹

The most recently developed Environment and Gender Index (EGI) – developed by IUCN (International Union for Conservation of Nature) in 2013 - is the first tool monitoring government performance in the area of gender equality, women's empowerment and environment. In the pilot period of 2013 this index has been measuring progress in 72 countries.³² The UNEP study of Ashbindu Singh c.s. (2010), analyses the state of sex-disaggregated data for assessing gender-differentiated vulnerabilities and climate change

²⁷ Batliwala, Srilatha and Alexandra Pittman (2010). *Capturing Change in Women's Realities: a critical overview of current monitoring & evaluation frameworks and approaches*. AWID.

²⁸ UN DESA (United Nations Department of Economic and Social Affairs) (2010). *Women of the World 2010*. UN DESA, New York; UN Statistics Office (n.a.). *Gender Statistics Manual*. Online Manual. .

²⁹ Economic Commission for Africa (UNECA) (2004). *The African Gender and Development Index (AGDI)*. UNECA, Addis Ababa.

³⁰ World Economic Forum (2013). *The Global Gender Gap Report 2013*. World Economic Forum, Cologny/Geneva.

³¹ AWID (Association for Women's Rights in Development): *Wiki on Monitoring & Evaluation (Gender)*. Compiled by Alexandra Pittman (2011-2013); CIDA (Canadian International Development Agency) (1997). *Guide to Gender Sensitive Indicators*. CIDA, Hull (Quebec) (produced by Tony Beck and Morton Stelcner); Moser, Annalise (2007). *Gender and Indicators: Overview Report*. Institute for Development Studies (IDS). BRIDGE Resource Pack, Brighton.

³² IUCN (2013). *The Environment and Gender Index (EGI) 2013 Pilot*. IUCN, Washington D.C. . Report, 153 pp.

impacts, and provides statistical evidence highlighting the significantly greater exposure of women as compared to men.³³

ii Knowledge gaps that need to be filled

Although the EGI measures performance in the area of environment and gender equality, it does so at country level. There is, however, a serious need to develop a composite index to measure progress on gender equality and women's empowerment, as well as environmental performance at local level. This would also make the measurement context-specific.

iii. Gender-related trends in measuring progress to be addressed and highlighted in Global Gender and Environment Outlook

For sectors such as agriculture, forestry, energy and water, gender-sensitive indicators have already been developed for use at local and national levels (and aggregated regional/global levels). These, and related indicators and statistics, are important tools for/in Global Gender and Environment Outlook.

Certainly the EGI should be widely applied and adjusted in order to accommodate the Global Gender and Environment Outlook process.

Another way to measure progress in the environmental sector, is through the analysis of MDG7 (on environmental security) reports from a gender perspective.

8. Gender Mainstreaming in Environmental Institutions and Mechanisms

The United Nations Fourth World Conference on Women, Beijing - September 1995, called upon Governments and other stakeholders to pay specific attention to the key area of Women and Environment. Its Platform for Action (BpFA) under Strategic Objective K on Women and Environment, identifies the following strategic (sub)objectives and related actions to be taken:³⁴

- Strategic objective K.1. Involve women actively in environmental decision-making at all levels.
- Strategic objective K.2. Integrate gender concerns and perspectives in policies and programmes for sustainable development.
- Strategic objective K.3. Strengthen or establish mechanisms at the national, regional, and international levels to assess the impact of development and environmental policies on women.

Progress on these will be measured through the BpFA+20 review in 2015.

Whereas gender equality is a central goal of many efforts to integrate a gender perspective into policies and actions, gender mainstreaming is an important strategy to reach that goal.

³³ Ashbindu Singh, Jenny Svensson and Anushka Kalyanpur (2010). 'The state of sex-disaggregated data for assessing the Impact of Climate Change', in *Proceedings World Climate Conference 3*, Geneva, August 2009.

³⁴ See: <http://www.un.org/womenwatch/daw/beijing/platform/>

The ECOSOC (Economic and Social Commission of the United Nations) agreed conclusions 1997/2 defines gender mainstreaming as:

“...the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women’s as well as men’s concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality.”

Reaffirming the call of the 1997 ECOSOC Resolution for widespread gender mainstreaming into every agency and aspect of the UN system (E/1997/66), in 2005 the ECOSOC adopted the resolution 2005/31, that underlines that advancing gender equality is not only a right at its own but fundamentally important to meeting development goals.

i. Existing and emerging challenges from a gender lens (incl. policy implications).

Although there have been some scattered efforts to bring a gender perspective into environmental policies, institutions and actions in the late 1980s and 1990s, particularly within the International Union for Conservation of Nature (IUCN) and the United Nations Environment Programme (UNEP), main gender mainstreaming efforts have only been made in environmental work, policies and institutional settings of international and national organisations since the beginning of this century.

The Rio Conventions and their related institutional settings, have had a very diverse level of gender sensitiveness, with the United Nations Convention to Combat Desertification (UNCCD) as the most advanced, the Convention on Biological Diversity (CBD) as legal framework with some important entry points for integration of a gender perspective in biodiversity management and conservation policies and efforts, and the United Nations Framework Convention on Climate Change (UNFCCC) as a legal framework with complete absence of a gender approach in the original agreement text. This makes that the gender mainstreaming efforts in the three conventions also show a different dynamism and timeline: with the UNCCD adopting a gender-sensitive approach already since its inception, the CBD showing major efforts in the early years of this century (building on the work undertaken much earlier in the areas of gender and agriculture and forestry). The UNFCCC, however, seems to show an important catch-up during the past 5-10 years, with many decisions, studies, and efforts to mainstream gender in climate change policies and action recently.

A myriad of publications with guidelines and tools, as well as an increasing expertise, support efforts to mainstream gender in the (global) environmental sector, even if these have not been developed for the environmental sector as such.

The question remains – however – to what extent political will exists, and resources and capacity are allocated and enhanced to ensure the effectiveness and quality of such gender mainstreaming processes in global, regional and national environmental institutions on the

longer run. Also: how much are social (development) goals – including gender equality - , internalized in these institutions and in individual decision-makers and experts.

ii. Knowledge gaps that need to be filled

There is a need to learn more about factors of success and failure and conditions for (efficient and effective) gender mainstreaming in environment at local, national and international level. Also knowledge about diverse contexts, and about what approach works best where, is necessary.

iii. Gender-mainstreaming trends in environment to be addressed and highlighted in Global Gender and Environment Outlook

The following issues could be addressed in Global Gender and Environment Outlook:

- Lessons learned from gender mainstreaming in the context of the harmonisation of the Rio-conventions, with specific attention for national (and regional) implementation, is a relevant area to be addressed in Global Gender and Environment Outlook.
- Although most expertise and knowledge seems to be available on gender mainstreaming efforts in the Rio conventions, it would be relevant to look into such efforts in other environmental conventions and sectors as well, such as those on Chemicals Management.
- There is a need to review lessons from gender mainstreaming efforts in diverse institutional institutions, at national and international level.³⁵
- Some attention for gender expertise (capacity) amongst environmental experts and environmental decision-makers in Global Gender and Environment Outlook is relevant (e.g. through statistics).

9. Gender and the Green Economy: towards transformational change?

“A Green Economy is an economy that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities” (UNEP, 2011: Towards a Green Economy: Pathways to sustainable development and poverty eradication) This means that the Green Economy must be consistent with the social, ecological and political aspects of sustainability, in a fair way for all. (Guerrero and Stock, 2012; p. 3-4)³⁶

i. Existing and emerging challenges from a gender lens (incl. policy implications).

UNEP started a Green Economy initiative in 2008 (www.unep.org/greeneconomy/), as an answer to the global economy that is focusing solely on economic growth and profit, and that seems to neglect environmental inputs, circumstances and effects. In the context of the Rio+20 United Nations Conference on Sustainable Development (UNCSD, in 2012) and its

³⁵ One attempt has been made, on gender-mainstreaming in general – not environment related: http://www.oecd.org/derec/afdb/4_MainstreamingGenderEqualityAroadresults%20oroadtonowhereAnEvaluationSynthesis.pdf

³⁶ Guerrero, Naret M. and Anke Stock (2012). *Green Economy from a Gender Perspective. Policy Paper.*

outcome document “the Future We Want” the idea of a Green Economy was further developed and promoted, e.g. by advocating for green jobs, sustainability technologies and resources efficiency. It is mainly in that recent period that gender experts, including feminist economists, and civil society organisations started to develop a critique of the way the concept of the Green Economy was presented.

Main critical reflections include:

- That the Green Economy is mainly presented as a merger between environmental and economic objectives, neglecting social implications – notwithstanding how important a more environmentally sound economy would be for the future of mankind. Also a warning for ‘green-washing’ policies and actions is articulated.
- That social aspects are economic development are utterly neglected; this includes specifically a gender-approach. Gender mainstreaming is still missing from the concept, whereas gender equality is a cornerstone for sustainable development.
- Women’s participation (and gender-balance, also in leadership functions) and the benefiting of both men and women from Green Economy policies and projects is not well articulated yet.
- Investments and other financial means, technologies, capacity training and other resources connected to the Green Economy are not automatically available and accessible for (local) women; so specific efforts are needed to ensure their access and control over such resources.

In order to countervail these shortcomings, ecological and ecofeminist economies search for new theories and policy approaches, and concrete suggestions are made to explicitly make the linkages between gender equality, poverty eradication and sustainable development, promote human well-being, and make the economy more inclusive and gender-responsive. In order to do so, also the active participation of women in green jobs at all levels, including in leadership functions, should be secured, as well as women’s access to adequate finances, technologies and resources, and gender-specific analysis and statistical data are necessary.

ii. Knowledge gaps that need to be filled

As this area is relatively new, there is an urgent need to develop a strong portfolio and body of knowledge on a gendered/gender-sensitive Green Economy. All areas mentioned seem to be in their initial stage and urgently need further development.

Although, outside the direct scope of the Global Gender and Environment Outlook, there is also a need to determine if the Green Economy itself is the best answer to present ecological, social and economic challenges, or if alternative options – that promote the transition to a sustainable global and local society - are desirable.

iii. Gender-mainstreaming trends in the Green Economy to be addressed and highlighted in Global Gender and Environment Outlook

As the development of the Green Economy is rather recent and still in development, all the issues mentioned above seem to be relevant and appropriate to address in the forthcoming Global Gender and Environment Outlook. Particular attention needs to be paid to geographic diversity (in a globalized world and economy) and to inspiring examples of gender-sensitive green economy policies and initiatives in different regions.

10. Strengthening women's and men's roles as 'Agents of Change'

The following steps are mentioned for enhancing women's and men's roles as 'Agents as Change' in environment:

- **Value** their contributions, work and knowledge systems in environmental management.
- Enhance their **capacities**, including their resilience, and adaptive capacity; improve their access to skills, education and knowledge; ensure that environmental policies, strategies and measures, support basic security and the right to sustainable development.
- **Empowerment**, including training, access to resources, to information and sustainable technologies. Promote training of trainers including with local women and men.
- **Leadership** training of women in the environmental sector, and enabling women to take on green jobs.
- **Organisation**: through women's groups, workers unions, cooperation with other stakeholders, including civil society groups and scientists; recognize the role of advocacy
- Promote meaningful **participation** of local women and men. Ensure that women participate in all decisions related to environmental issues (incl. biodiversity and climate change).
- Ensure **participatory approaches**, for example in environmental data collection, and the development and use of indicators, as well as M&E frameworks. The role of external and internal groups of women and men in monitoring and reviewing efforts to mainstream gender in environmental conventions, agreements and institutions is essential.
- Enhance the direct involvement of **gender expertise centres and experts** in Global Gender and Environment Outlook and related processes.
- Allocate and ensure accessibility to adequate **resources** (financial, technological, technical support) to address the needs of women and men in the context of environmental (incl. climate) change.

- Ensure the **rights** of local women and men to biodiversity, land, water and other natural resources, in a sustainable way, and promote environmental justice that is informed by a gender perspective.
- Empower women and men in becoming environmental **entrepreneurs** (e.g. sustainable energy entrepreneurs) and active participants in making and designing natural resource and environmental choices, including water and energy services and infrastructure.

Note (study: Kelkar & Krishnaraj, 2013): on how to operationalise women's right to land and other assets: several authors in this publication conclude that as 'women are not just autonomous individuals' but also members of communities and groups, apart from women's **individual** entitlements to land and other productive assets, one should also consider a combination with **joint** ownership to land and water bodies, and collective rights to forests and common property, including capacity development in managing those areas.

11. SOME PRELIMINARY CONCLUSIONS

- ❖ Much knowledge is already available, but rather scattered and representing different sectors and different periods in time.
- ❖ Most publications focus on a generic (global) level, and case studies seem to be of a rather ad-hoc nature. Therefore, a comprehensive regional and global insight in the issues discussed is still limited.
- ❖ Based on the available research, studies and publications, and with some extra efforts to make these more location/region-specific, the development of the Global Gender and Environment Outlook is possible.
- ❖ In order to do so the involvement of gender-environment experts (institutions) not only from a broad range of sectors, but also with specific regional expertise, is required. The number and extent of available studies and publications, however, shows there is already a wide range of expertise and related institutions available.
- ❖ In order to streamline the publication, a common analytical framework, and the identification of comparable gender-environment indicators is necessary, next to working with a well-defined table of contents.
- ❖ The issues explored in the scoping study: energy, climate change, land use, water management, biodiversity conservation, and environmental health, all seem to be relevant. It is necessary to combine those with issues like the status of gender-mainstreaming in environmental agreements, policies and institutions at international and national levels (working with some appealing cases).
- ❖ The link towards necessary transformational changes is presently (in the scoping study) mainly made through the analysis of Green Economy efforts from a gender-perspective. The question is, however, if other approaches must be presented in Global Gender and Environment Outlook, such as education and spatial planning.
- ❖ Issues like: population dynamics and reproductive rights, as well as marine environments are not well tackled in the scoping study yet. Question is if that is an omission.
- ❖ Sustainable production and consumption is now mainly integrated in the other chapters, and more specific in the chapter on the Green Economy. Question is if SP&C needs a separate section in the Global Gender and Environment Outlook.
- ❖ A special effort will be needed to align the Global Gender and Environment Outlook with the post-2015 development process, and the Sustainable Development Goals to be formally defined and adopted in 2015.

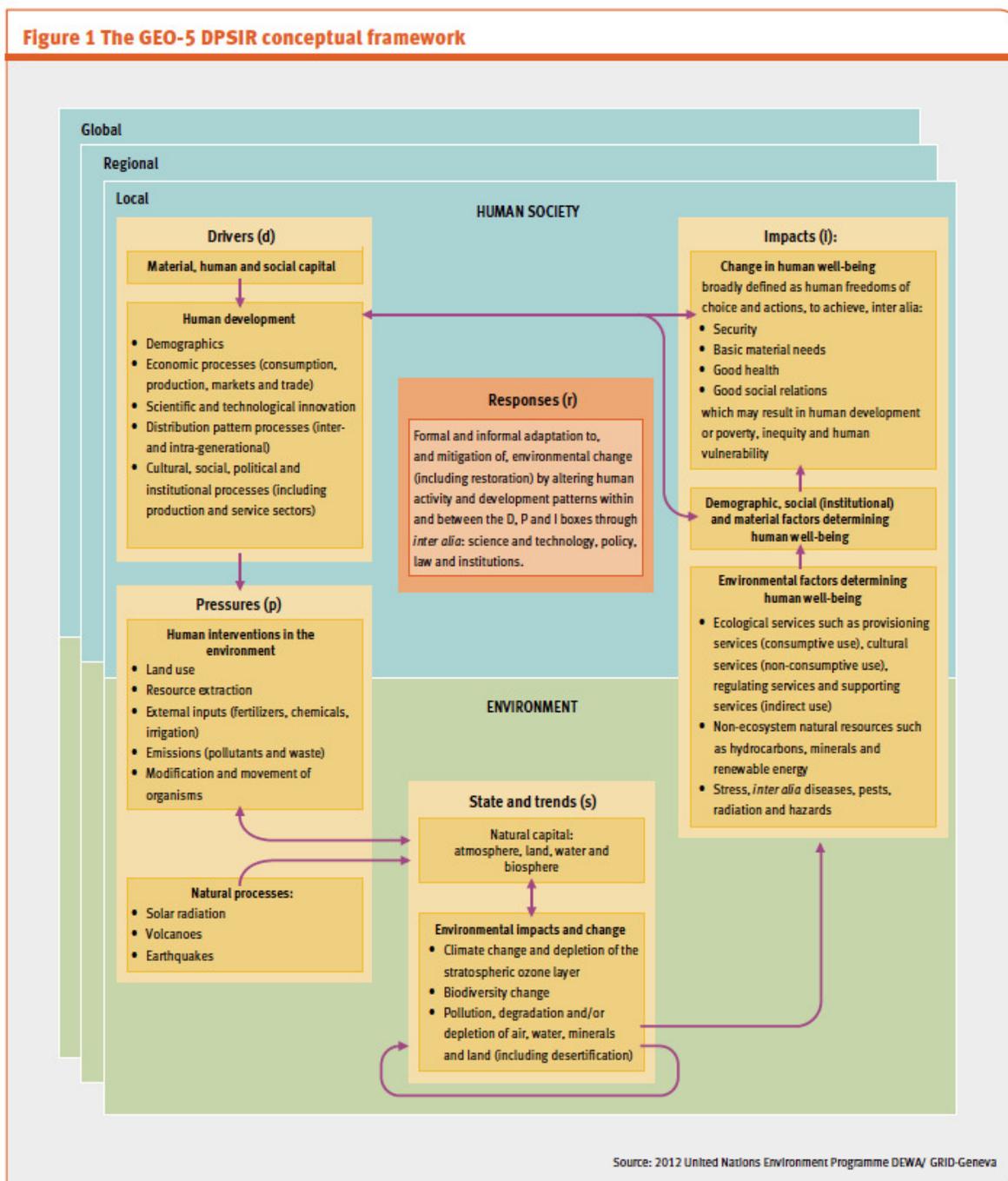
ANNEX 1**ACRONYMS / ABBREVIATIONS**

ABS	Access and Benefit Sharing
ADB	Asian Development Bank
AGDI	African Gender Development Index
AWPS	African Women's Progress Report
AWID	Association for Women's Rights in Development
CBA	climate-based adaptation
CBD	Convention on Biological Diversity
ccGAP	Climate Change Gender Action Plan
CDM	Clean Development Mechanism
CEDAW	Convention on the Elimination of all forms of Discrimination Against Women
CESCRs	Covenant on Economic, Social and Cultural Rights
CGIAR	Consultative Group on Agricultural Research
CIDA	Canadian International Development Agency
CIFOR	Centre for International Forestry Research
CPRs	Covenant on Civil and Political Rights
COP	Conference of Parties
DFID	Department for International Development (UK)
DPSIR	driver – pressure – state – impact – responses
ECOSOC	Economic and Social Commission of the United Nations
EGI	Environment and Gender Index
EIGE	European Institute for Gender Equality
ESMAP	Energy Sector Management Assistance Program
EU	European Union
FAO	United Nations Food and Agricultural Organisation
GACC	Global Alliance on Clean Cookstoves
GBV	gender-based violence
GEF	Global Environment Facility
GePA	Gender Plan of Action
GEO	Global Environment Outlook
GGCA	Global Gender and Climate Alliance
GMO	genetically modified organism
gsi	gender-sensitive indicator
GSI	Gender Status Index
GWA	Gender and Water Alliance
GWP	Global Water Partnership
GWTF	Interagency Task Force on Gender and Water
HDR	Human Development Report
HS	human security
IANWGE	Inter-Agency Network on Women and Gender Equality
ICIMOD	International Centre for Integrated Mountain Development
IDS	Institute for Development Studies
IFAD	International Fund for Agricultural Development
IFPRI	International Food and Policy Research Institute
IEA	International Energy Agency

IIED	International Institute for Environment and Development
IGWG	Interagency Gender Working Group
ILC	International Land Coalition
IUCN	International Union for Conservation of Nature
IPCC	Intergovernmental Panel on Climate Change
IWRM	integrated water resources management
MDGs	Millennium Development Goals
M&E	monitoring and evaluation
MEA	Millennium Ecosystem Assessment
MTS	Medium-Term Strategy
NAPA	National Adaptation Plans of Action
NBSAP	National Biodiversity Strategies and Action Plans
NGO	non-governmental organisation
NREL	National Renewable Energy Laboratory
OECD	Organisation for Economic Cooperation and Development
OSAGI	Office of the Special Advisor on Gender Issues and Advancement of Women
PA	protected areas
PAN-AP	Pesticides Action Network – Asia and Pacific
PES	Payment Ecological Services
POP	persistent organic pollutants
PTSD	post-traumatic stress disorder
REDD	Reducing Emissions from Deforestation and forest Degradation
SD	sustainable development
SIANI	Swedish International Agricultural Network Initiative
SIDA	Swedish International Development Assistance
SMC	sound management of chemicals
SME	small and medium enterprises
SRC	supporting resources collection (BRIDGE/IDS)
S&T	science and technology
SP&C	sustainable production and consumption
STPP	Small Town Pilot Project
TEK	traditional ecological knowledge
TK	traditional knowledge
UNCCD	United Nations Convention to Combat on Desertification
UNCSD	United Nations Conference on Sustainable Development
UNCED	United Nations Conference on Environment and Development
UNDESA	United Nations Division on Economic and Social Affairs
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNESCO	United Nations Education, Science and Cultural Organisation
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Fund for Population Affairs
UNIDO	United Nations Industrial Development Organisation (?)
UNISDR	United Nations International Strategy for Disaster Reduction
UN-PBSO	United Nations – Peace-Building Support Office

UNRISD	United Nations Research Institute for Social Development
UNSCN	United Nations Standing Committee on Nutrition
VAW	Violence Against Women
WASH	Water, Sanitation, and Hygiene for All
WAVE	Women As the Voice for the Environment (conference)
WB	World Bank
WDR	World Development Report
WECF	Women in Europe for a Common Future
WEDO	Women's Environment and Development Organisation
WID	women in development
WWF	World Wildlife Fund
WHO	World Health Organization
WSP	World Sanitation Programme
WOCAN	Women Organizing for Change in Agriculture and Natural Resource Management
WRM	water resources management

ANNEX 2 Global Gender and Environment Outlook: towards a gender-responsive GEO-5 DPSIR conceptual framework



DPSIR for assessment of gender and environment nexus

Drivers (d)

Material, human and social capital



Human Development

- * Demographics (population dynamics and mobility) } reproductive health and rights, gender-mobility/migration
- * Economic processes (consumption, production, markets and trade) } gendered aspects of consumption and production
- * Scientific and technological innovation } women's/men's role in S&T
- * Distribution pattern processes (inter- and intra-generational) } gender aspects of distribution (assets, resources)
- * Cultural, social, political and institutional processes } gender (in)equality in culture, society, policies and institutions.

Pressures (p)³⁷

Human(m/f) interventions in the environment

- * Land use } gendered aspects of land use, including urbanization
- * Resource extraction } gendered aspects of resource extraction of natural resource use/extraction
- * External inputs } women's / men's access to inputs
- * Emissions (pollutants and waste) } gendered aspects of emissions and waste management (3Rs)
- * Changes in the climate system } gendered aspects of climatic changes
- * Modification and movement of organisms.

Impacts (i)

Change in human well-being broadly defined as human freedoms of choice and actions, to achieve, inter alia:

- * Security } gendered aspects of human security in a changing environment³⁸
- * Basic material needs } women's / men's access to basic material needs in a changing environment
- * Human health } gendered aspects of health and environment
- * Good social relations (which may result in human development or poverty, inequity and human vulnerability) } impacts on gender equality.



Demographic, social (institutional) and material factors determining human well-being
(see Drivers)

³⁷ Under this item 'Pressures' gender aspects will only be tackled in a limited way, with an emphasis on land use.

³⁸ See separate Gender, CC, Human Security framework (see: Scoping Study)

?

Environmental factors determining human well-being

Responses (r)

Formal and informal adaptation to, and mitigation of, environmental change (including restoration) by altering human activity and development patterns within and between the D, P and I boxes through inter alia: science and technology, policy, law and institutions }

- * women and men as agents of change
- * gender-related in environmental policies, programs and actions
- * gender aspects of environmental institutions
- * case studies, examples on gender-specific responses.

Some further explanation:

- The Boxes above form efforts to specify gender-aspects of the main elements of the DPSIR Framework.
- Not for all the elements a gender-specific approach is relevant, e.g. 'State and trends' (s), 'natural processes'(p) and 'environmental factors'(i) are not specified in that context.
- For the following elements a gender approach is primarily relevant: Drivers, Impacts, Responses; and Pressures only partly.

Colour: very relevant Colour: potentially relevant.